REMARKS/ARGUMENTS

The claims are 1-18. Claims 1, 11 and 13 have been amended to better define the invention. These claims and the remaining claims 2-10, 12 and 14-18 have also been amended to improve their form or to remove reference numerals. Support for the claims may be found, *inter alia*, in the disclosure at pages 1 and 8-10. Reconsideration is expressly requested.

Claim 13 was rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. According to the Examiner, a "control program" is not one of the statutory categories set forth in MPEP 2106.01.

This rejection is respectfully traversed.

Contrary to the Examiner's position, claim 13 as amended is not directed to a "control program" but rather is directed to a method as recited in claim 11 as amended, wherein the control device used in the method includes a computer with a control program. See also claim 4 as amended.

As instructed by MPEP 2106.01 I computer programs are often recited as part of a claim, and U.S. PTO personnel are directed to determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine or is used in a computerized process where the computer executes the instructions set forth in the computer program in which case the claim remains statutory irrespective of the inclusion of a computer program in the claim. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e. to only its description or expression, is it descriptive material *per se* and hence not statutory.

It is respectfully submitted that claim 13, as amended, is directed to a method for the digital exposure of light-sensitive materials using a device with an electronic picture memory for storing a master image, with a drive device, with a scroll means, and with a control device for synchronizing the drive device with the scroll means. Although the control device includes a computer with a control program as recited in claim 13, as amended, it is respectfully submitted that the invention claimed in claim 13 as amended, taken as a whole is not directed to a mere program listing but rather relates to a computerized process where a computer program is used. Accordingly, it is

respectfully submitted that claim 13, as amended, fully complies with 35 U.S.C. 101, and Applicants respectfully request that the rejection on that basis be withdrawn.

Claims 1-3, 8-12 and 16-18 were rejected under 35 U.S.C. 102(b) as being anticipated by *Uemura U.S. Patent Application Publication No. 2001/0048460*. The remaining claims 4-7 and 13-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Uemura* in view of *Isono et al. U.S. Patent No. 6,249,306*.

This rejection is respectfully traversed.

As set forth in claims 1 and 11 as amended, Applicants' invention provides a device for the digital exposure of light-sensitive materials, and a method using that device, including an electronic picture memory for storing a master image, an exposure unit which includes a light source, an electronically activatable spatial light modulator for representing a two-dimensional part picture of the master image, and imaging optics for projection of the part picture onto the light-sensitive material. The device also includes a drive device including motors and a motor control, for the movement of the exposure unit parallel to the surface of the light-sensitive material, a scroll means for

scrolling a picture strip of the master image through the light modulator, and a control device for synchronizing the drive device with the scroll means. The device also includes a rapid intermediate memory for storing a strip-like region of the master image, from which the picture data for the part picture to be exposed in each case, may be transmitted onto the light modulator synchronously with the movement of the exposure unit. In this way, Applicants' invention provides a device and method with which an exposure in the quick scrolling mode is possible.

Uemura relates to a method of and an apparatus for recording image by exposure to light beams as can be inferred especially from FIGS. 1, 2 and 3. *Uemura*'s approach uses a plurality of laser beams LD,... LD each of which is individually controlled by an associated driver DR(1), DR(2),... DR(m). The assembly of the one-dimensional array of laser diodes and associated drivers is mechanically movable in the direction Y (see FIGS. 1 and 4) by means of motor 28. Line data is shifted across the one-dimensional light source array by means of the line buffers LB(1), LB(2),... LB(m). For the purpose of scrolling one-dimensional image data is read from the divided image data memories HM(1), HM(2),... HM(m) and transferred to the buffer memories LB(1). Each of the buffer memories LB(1) has two line

buffers 46a, 46b. The one-dimensional image data stored in the line buffers 46a, 46b are alternately supplied to the drivers DR1. It is respectfully submitted that these memories and processes can be identified with the scroll means for scrolling a picture strip of the master image through the light modulator as recited in Applicants' claims.

In contrast to *Uemura*, however, Applicants' device and method as set forth in claims 1 and 11, as amended, makes use of an electronically activatable light modulator that is a spatial light modulator such as a DMD or transmissive LCD screen. Thus, according to the device and method as set forth in Applicants' claims 1 and 11 as amended, partial images being scrolled across the light modulator are two-dimensional. This feature, however, as discussed in Applicants' disclosure entails the problem that the light modulator, i.e. the LCD screen or the DMD chip, provides no shift register functions, the picture data for the partial picture having always to be transmitted to the light modulator in a complete manner, which leads to about one million pixels having to be transmitted to the light modulator several 1000 times per second.

Conversely, in the device according to *Uemura*, merely one-dimensional information must be transmitted to the device at short intervals. Thus, the problem underlying Applicants' device and method as set forth in claims 1 and 11, as amended, does not occur in *Uemura*, which is based on a one-dimensional laser diode array as opposed to a single light source in conjunction with a spatial light modulator which is being used in Applicants' device and method as recited in the claims.

The remaining reference to *Isono et al.* cited with respect to certain dependent claims has been considered but is believed to be no more relevant. *Isono et al.* simply relates to a multi-beam drawing method using partially damaged light emitting devices and including spiral correction wherein a program for initialization by the CPU is previously stored in ROM provided for the CPU and may be transferred to and stored in RAM provided for the CPU. There is no disclosure or suggestion of a device for the digital exposure of light-sensitive materials and a method using same in which an electronically activatable spatial light modulator for representing a two-dimensional part picture of a master image is used.

Accordingly, it is respectfully submitted that claims 1 and 11 as amended, together with claims 2-10 and 12-18, which depend
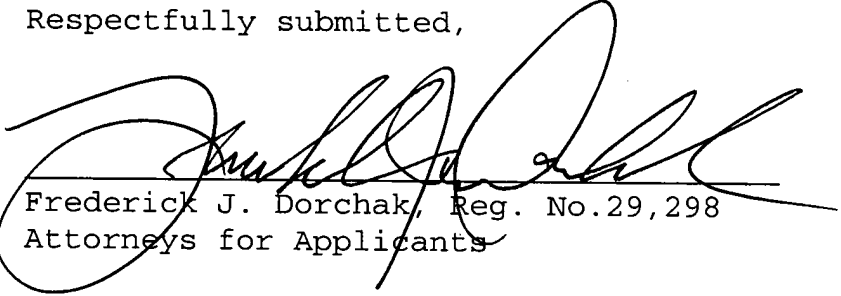
directly or indirectly on claim 1 or claim 11 as amended, respectively, are patentable over the cited references.

In summary, claims 1-18 have been amended. In view of the foregoing, it is respectfully requested that the claims be allowed and that this case be passed to issue.

Applicants also submit herewith a Supplemental Information Disclosure Statement.

Respectfully submitted,

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Enclosures: Supplemental Information Disclosure Statement

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 30, 2009.

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